## Chapter

## INTRODUCTION

The State of Arizona acting through its Department of Transportation, Aeronautics Division has prepared the Navigational Aids and Aviation Services Special Study to support the mission of encouraging and advancing the safe and orderly development of aviation in the State. A project advisory committee representing pilot, airport management and aviation system users participated in the identification of study findings, recommendations and priorities as input to the planning process. User surveys and pilot information meetings were also conducted to obtain input. Key items to be addressed in the Study include instrument approaches, visual landing aids, communications, weather and aviation services.

The Study identifies the extent of existing federal and nonfederal resources available in the Arizona aviation system with respect to:

- 1. Terminal instrument approach capabilities.
- 2. Visual landing aids.
- 3. Air traffic and weather radar coverage.
- 4. Automated and manned weather observing facilities.
- 5. Radio and telecommunications networks.
- 6. Aviation services and facilities.

These existing facilities and capabilities are then compared to anticipated demands to identify future individual airport and aviation system needs. Care is exercised to ensure that State initiatives supplement and complement federal programs in order to maximize the investment of State and local resources. Underlying these study activities is an assessment of the implementation schedule of new programs and facilities and future technologies in areas related to navigation, communications and weather data reporting and networking.

The Study then addresses program options that are appropriate for State establishment and presents an implementation and prioritization plan. The latter considers funding requirements, staging and the potential for private sector participation in a form public/private partnerships for appropriate system needs.

The chapters that follow present a logical progression of analysis of each of the study elements and their implementation in the context of an overall program. Inasmuch as the topics addressed in this study are technical and specific to the air transportation sector, a glossary of acronyms and definitions is presented in Appendix A as an aid to the reader